

## Lower Duwamish Waterway Superfund Site

August 2005

### EPA and Ecology Announce Cleanup Plan for Terminal 117

The U.S. Environmental Protection Agency (EPA), in coordination with the Washington State Department of Ecology (Ecology), has selected a plan for cleaning up the riverbank and contaminated sediment (mud) at Terminal 117 on the Lower Duwamish Waterway in Seattle. This fact sheet outlines the plan and responds to some major comments from the public.

### Contaminated Material Will Be Removed

The major elements of the cleanup are digging up or dredging contaminated material, constructing a cap, and disposing of contaminated material. Read the paragraphs below for a cleanup summary. *(If you would like more detail, see For More Information on page 5.)*

**Riverbank:** Soil contaminated with polychlorinated biphenyls (PCBs) will be removed from the bank and the upland area near the bank, including the drainage ditch at the south end of the property. Depending on the results of upcoming sampling, more upland soil may be removed. Creosote-treated timber and piles, asphalt, and debris will also be removed. A cap of clean material will be constructed to cover the excavated area and continue down the mudflat to protect the mud from recontamination.

**South Park Marina:** Within the marina, at the north end of the site, the water depth needed for boat traffic will be maintained. If necessary, a sheet pile retaining wall will be built to prevent the bank from eroding into the marina.

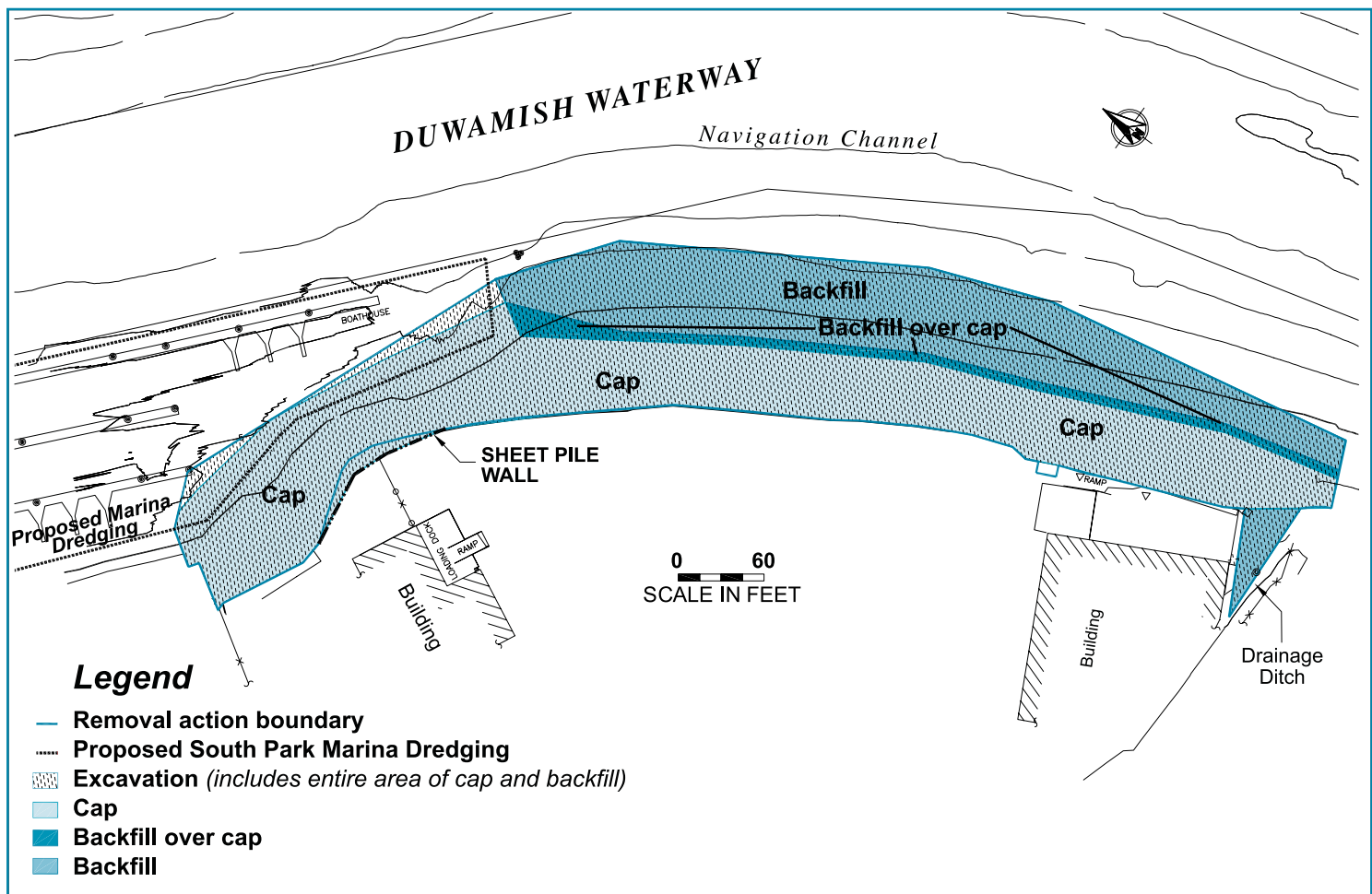
**Mudflat:** This area between the mid and low tides has lower levels of PCB contamination than the bank. Mud and debris will be removed until the top layer meets the state standard for PCBs in mud. Most of this work will occur on relatively dry mud while the tides are out, but some work is likely to occur in one to two feet of water.

**Submerged mud:** This area has lower levels of PCBs than the mudflat. A dredge will remove mud until the surface meets state standards. This area and the dredged area of the mudflat will be filled with clean material to restore habitat for fish and creatures that live in the mud.

**Transportation and disposal:** Trucks lined to prevent spills will transport contaminated soil and mud from the property. Removed materials with PCBs at greater than 50 parts per million (ppm) will be disposed of in a specially permitted landfill. Less contaminated materials will be disposed of in a non-hazardous waste landfill.

EPA and Ecology believe that disposal in appropriate landfills will protect people and the environment from the contaminated material removed from Terminal 117. The agencies recognize that some members of the public favor treatment. It was not chosen for Terminal 117 because it would delay the cleanup and increase costs, and the treated material might still have contamination levels that would require landfill disposal.

*(See removal area drawing on page 2.)*



After PCB-contaminated soil and mud are removed at Terminal 117, most areas will be covered by a clean cap or backfill.

## Public Comments Made a Difference

The Terminal 117 cleanup plan is a revision of a draft plan developed by the Port of Seattle (Port) and the City of Seattle (City), evaluated by EPA, and presented to the public last March. Community members, elected officials, local organizations, and government agencies submitted over one hundred comments on the draft plan.

As a result of public comments, EPA asked the Port and the City to revise the plan and take actions, including these:

- Take more samples of the bank at the north end of the site and the ditch at the south end of the site.
- Install more wells for monitoring the groundwater beneath the north end of the site.

These actions have provided more information that will be used to decide the extent of the cleanup.

In addition, EPA and Ecology will coordinate with the Port and the City to hold meetings or otherwise provide information and get input from stakeholders during the design and cleanup work. Outreach activities will focus on issues of concern, such as these:

- Truck traffic and control of the cleanup site.
- Plans for cleanup of the bank and upland.
- Ways to minimize the spread of contamination during dredging.

*continued*

## Here Are Responses to Some Specific Concerns

### EPA and Ecology Continue to Encourage Citizen Involvement

*Community members would like* citizen involvement to continue throughout the Terminal 117 cleanup.

EPA and Ecology will continue to consider community concerns throughout the cleanup. Community involvement activities will include providing information through fact sheets and the EPA website, meeting with community members, and working with the Port, the City, and the community advisory group for the Lower Duwamish Waterway site to provide information and get input.

### Plans Will Reduce Impacts on the Community

*People living near Terminal 117 are concerned* that they will be affected by dust and traffic during the cleanup.

The contractor selected for the cleanup will prepare a plan with ways to protect the public and reduce the impact of the cleanup. Transportation and safety details will include hours of operation, decontamination of vehicles, anticipated truck routes, and methods to prevent spills and contain spilled materials.

### Cleanup Will Occur as Soon as Possible

*People would like* the cleanup to occur soon.

EPA, Ecology, the Port and the City are all working to start the cleanup work as soon as possible. In response to public comments, additional time has been taken to gather more information to prepare for that work. However, the agencies will speed up other steps so that the cleanup will not be delayed.

### Cleanup Boundary Selected to Be Protective

*Some people suggest* that the cleanup area should be expanded to include any areas where PCB contamination in the submerged mud is greater than the state standard for sediment quality.

EPA and Ecology believe that the proposed cleanup boundary will protect people and the environment. PCB contamination levels outside this boundary, which are similar to levels in the rest of the waterway, will be considered in the cleanup decision for the entire waterway.

### Dredging Methods Will Be Carefully Selected

*Some people are concerned* that dredging will stir up and spread contamination.

The most effective way to reduce the spread of contamination in the water is to work when the mud is dry. Working during low tides will allow much of the contaminated material to be removed as dry mud. For work in the water, dredging methods will be carefully chosen to limit the spread of contamination. In addition, EPA will closely monitor dredging operations to ensure that the spread of contamination is minimized.

### Contamination Sources Will Be Identified and Controlled

*People asked for* cleanup activities to be coordinated with source control to minimize recontamination of the site.

Removal of the highly contaminated riverbank will control a primary source of contamination. Recent street and yard cleanups near Terminal 117 have already reduced the potential for recontamination.

Ecology has recently published a “Source Control Action Plan” for Terminal 117. The plan describes what Ecology, the Port and the City are doing to prevent recontamination of the Terminal 117 sediment after it is cleaned up.

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**For more details about public comments,** please read the “Responsiveness Summary.”  
(See For More Information on page 5.)

## What Happens Next?

The Port and the City plan to begin designing the cleanup this month. The cleanup work is expected to begin in spring 2006 and continue through the following winter.

### Background

EPA, the Port and the City have been studying Terminal 117 as part of a larger investigation of about five miles of the Lower Duwamish Waterway. EPA and Ecology picked the Terminal 117 area for early cleanup because of high concentrations of PCBs in the mud, which exceed State of Washington standards. PCBs are man-made chemicals that are toxic to organisms living in the mud, build up in fish and can harm the health of people who eat contaminated fish or shellfish.

The Lower Duwamish Waterway has served as Seattle's major industrial corridor since it was created by the widening and straightening of the Lower Duwamish River, completed in the early 1900s. Past and present discharges to the waterway include boat manufacturing and repair, marina operations, airplane parts manufacturing, and metals fabrication. In addition, twelve combined sewer overflows and over one hundred storm drains discharge to the waterway.

EPA added the Lower Duwamish Waterway site to the Superfund list on September 13, 2001. This is EPA's list of the nation's most contaminated hazardous waste sites that are targeted for investigation and cleanup.

In December 2000, EPA and Ecology signed an agreement with the Port of Seattle, the City of Seattle, King County, and The Boeing Company. Under the agreement, this group is investigating the waterway contamination, assessing potential risks to human health and the environment, and evaluating cleanup alternatives. Agreements for the actual cleanup of the sediments and the control of contaminant sources may involve other parties.

## For More Information

You can read more about the Terminal 117 cleanup in documents such as the “Engineering Evaluation/ Cost Analysis,” the “Action Memo,” and the “Responsiveness Summary” at the locations listed below. Please call for an appointment:

**Georgetown Gospel Chapel**

6606 Carleton Avenue South, Seattle, WA, 206-767-3207

**EPA Region 10 Records Center**

200 Sixth Avenue, Seattle, WA, 206-553-4494

**Washington State Department of Ecology**

3190 160<sup>th</sup> Avenue SE, Bellevue, WA, 425-649-7190

You can also review many of these documents on the EPA website:

<http://yosemite.epa.gov/r10/cleanup.nsf/sites/lduwamish>.

The Terminal 117 “Source Control Action Plan” is available at this Ecology website:

[http://www.ecy.wa.gov/programs/tcp/sites/lower\\_duwamish/lower\\_duwamish\\_hp.html](http://www.ecy.wa.gov/programs/tcp/sites/lower_duwamish/lower_duwamish_hp.html).

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Si desea hablar con alguien que habla español, llame a **Pamela Emerson**, EPA, 206-553-1287.



*Alternative formats are available. For reasonable accommodation, please call Cindy Schuster. TTY users, please call the Federal Relay Service at 800-877-8339 and give the operator Cindy Schuster's phone number.*



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*TERMINAL 117 CLEANUP PLAN ANNOUNCED*  
*LOWER DUWAMISH WATERWAY FACT SHEET*  
*AUGUST 2005*



*LOWER DUWAMISH WATERWAY TERMINAL 117 FACT SHEET*